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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/644,915	08/24/2000	Gee-Gwo Mei	YOR9-2000-0434	1873

7590 01/28/2004

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EXAMINER

GEREZGIHER, YEMANE M

ART UNIT PAPER NUMBER

2144

DATE MAILED: 01/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/644,915

Applicant(s)

MEI ET AL.

Examiner

Yemane M Gerezgiher

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☒ Claim(s) 7, 10, 23 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This application has been examined. Claims 1-34 are pending.

Allowable Subject Matter

2. Claims 7, 10, 23, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-31 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 17, the inventive entities recite, "merging said plurality of resource tables ..." (claim 1, claim lines 10 and claim 17, claim line 9). Which has no antecedent basis. No "plurality of resource requirement ..." has been previously defined in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 8, 11, 15, 17, 26, 30, 32 and 33 are rejected under 35

U.S.C. 103(a) as being unpatentable over Xiangping Chen et al (Entitled:

"Providing Differentiated Service from an Internet Server" hereinafter referred to as Chen in view of Hejza (U.S. Patent Number 6,577,628) and further in view of what would have been obvious to one ordinary skill in the art at the time the invention was made.

As per claims 1, 17 and 32, Chen disclosed a method/system of providing QoS (Quality of Service) known as differentiated service based on different priority levels assigned to users. Chen disclosed plurality of task servers (which can be seen as multiplicity of server providers or content providers) where at least one server from the distributed web servers receiving plurality of requests from multiplicity of clients and where the requests were received, scheduled and queued based on the set priority levels providing prioritized service by assigning faster response rate to high priority tasks and by minimizing the response rate to users with lower priority levels without degrading the overall system throughput by *maintaining the resource status of the servers* (claim 33). See col. 1, 3rd paragraph of the Introduction and col. 2, distributed server model and Figure 1 (Queuing Model for Distributed Web Servers). Since the method/system is used and implemented in a computer system the server providing differentiated service to plurality of users a *processor and a program stored in the compute*

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were inherently disclosed. Chen substantially disclosed the invention as claimed, however Chen did not explicitly disclosed *creating service level tables and resource requirement tables and merging said requirement tables*.

An ordinary artisan working with Chen's system related to providing differentiated service would have been motivated to look for teachings that may have allowed storing user identification and service level database. In these arts Hejza disclosed a network providing quality of service (differentiated service) where the *differentiated service level was variable* (claims 15 and 30). See col. 7, lines 57-62. Hejza disclosed ISPs (Internet Service Providers) and content providers having a centralized server offering differentiated levels of services (see col. 7, lines 22-26) where at least one network server assigned differentiated service based on user information stored in tables in a database holding user identification such as unique account name and other identifications and the level of service that the user was entitled (as claimed in claim 8). See col. 7, lines 45-62. Hejza disclosed *extracting (parsing) user ID from an incoming request and assigning differentiated service to incoming request based at least in part on said user identification* (claims 11 and 26). See col. 12, lines 1-7. However, Hejza did not expressly teach merging tables.

Examiner takes Official Notice (see MPEP § 2144.03) that "merging multiplicity of tables in to one single table based on any policy " in database management and specifically in SQL (Structured Query Language) was well known in the art at the time the invention was made. For example Pouban et al (U.S. Patent Number 4,104,718) disclosed creating a resources requirement

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table by merging plurality of input tables. See U.S. Patent Number 4,104,718, col. 42, lines 43-51. The Applicant is entitled to traverse any/all official notice taken in this action according to MPEP § 2144.03. However, MPEP § 2144.03 further states "See also *In re Boon*, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice)." Specifically, *In re Boon*, 169 USPQ 231, 234 states "as we held in *Ahlert*, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or reputation of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further note that 37 CFR § 1.671(c)(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given very little weight.

Thus it would have been obvious to one of ordinary skill in the art, at the time the applicants invention was made to take the teachings of Hejza related to differentiated service by creating and storing user identification and user priority level along with what was well known technique (merging plurality of tables) and have modified Chen related to providing differentiated service by retrieving information from a table, because the user information stored in a table would have been used in connection with a database query in order to retrieve information about the user's unique identification and assigned level of service. See col. 7, lines 52-55.

7. Claims 1-6, 8, 9, 11-22, 24 and 26-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leighton (U.S. Patent Number 6,553,413) in view of Hejza (U.S. Patent Number 6,577,628) and further in view of what would have been obvious to one ordinary skill in the art at the time the invention was made.

Regarding to claims 1, 17 and 32, Leighton disclosed Content delivery network using edge-of-network servers for providing content delivery to a set of participating content providers providing hosting and content distribution globally. Leighton disclosed servers operating in a distributed manner forming part of a server farm connected to the communication network (claims 2, 3, 18 and 19) wherein there are a plurality of said server clusters coupled to said data communications network (see col. 3, lines 12-15), *wherein said network server collaborates in serving user requests with at least one other network server through inter-cluster communication* (claims 4 and 20). See col. 3, lines 25-37. Leighton disclosed redirecting requests from one server to another *a step of providing a network edge server communicating with another network edge/core server to redirect requests* (claims 5, 6, 21, 22 and 34). See col. 3, lines 37-44 and col. 12, line 53 through col.13, line 38). Leighton disclosed the differentiated service for purposes of targeted advertisements (claims 16 and 31). See col. 2, lines 10-22 and col. 16, lines 51-62. Leighton disclosed *identification comprising a request destination* (claims 12 and 27) (see col.6, lines 46-48), *wherein said user identification was based on a secured HTTP method type* (claims 9, 13, 14, 24, 28 and 29). See col.4, lines 7-30 and col.6, lines 43-53 and col.9, lines 16-41.

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Leighton Substantially disclosed the invention as claimed, however, Leighton did not expressly teach *creating service level tables and resource requirement tables and merging said resource requirement tables*.

An ordinary artisan working with Chen's system related to providing differentiated service would have been motivated to look for teachings that may have allowed storing user identification and service level database. In these arts Hejza disclosed a network providing quality of service (differentiated service) where the *differentiated service level was variable* (claims 15 and 30). See col. 7, lines 57-62. Hejza disclosed ISPs (Internet Service Providers) and content providers having a centralized server offering differentiated levels of services (see col. 7, lines 22-26) where at least one network server assigned differentiated service based on user information stored in tables in a database holding user identification such as unique account name and other identifications and the level of service that the user was entitled (as claimed in claim 8). See col. 7, lines 45-62. Hejza disclosed *extracting (parsing) user ID from an incoming request and assigning differentiated service to incoming request based at least in part on said user identification* (claims 11 and 26). See col. 12, lines 1-7. However, Hejza did not expressly teach merging tables.

Examiner takes Official Notice (see MPEP § 2144.03) that "merging multiplicity of tables in to one single table based on any policy " in database management and specifically in SQL (Structured Query Language) was well known in the art at the time the invention was made. For example Poubian et al (U.S. Patent Number 4,104,718) disclosed creating a resources requirement

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table by merging plurality of input tables. See U.S. Patent Number 4,104,718, col. 42, lines 43-51. The Applicant is entitled to traverse any/all official notice taken in this action according to MPEP § 2144.03. However, MPEP § 2144.03 further states "See also *In re Boon*, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice)." Specifically, *In re Boon*, 169 USPQ 231, 234 states "as we held in *Ahlert*, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further note that 37 CFR § 1.671(c)(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given very little weight.

Thus it would have been obvious to one of ordinary skill in the art, at the time the applicants invention was made to take the teachings of Hejza related to differentiated service by creating and storing user identification and user priority level along with what was well known technique (merging plurality of tables) and have modified Leighton related to content delivery network using edge-of network servers for providing content delivery to a participating content providers, because the user information stored in a table would have been used in connection with a database query in order to retrieve information about the user's unique identification and assigned level of service. See col. 7, lines 52-55.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Jeffries, Clark Debs et al (U.S. Patent Number 6,657,960) Entitled: *Method and system for providing differentiated services in computer networks.*

a. Borella, Michael S. et al (U.S. Patent Number 6,587,433 6) Entitled: *Remote access server for multiple service classes in IP networks.*

b. MATTSON, G A (WO 200197470) Entitled: *A Differentiated services offering method for frame relay network, involves providing differentiated services across multiple virtual circuits existing in between same destinations.*

c. Naveh, Arad et al (U.S. Patent Number 6,466,984) Entitled: *Method and apparatus for policy-based management of quality of service treatments of network data traffic flows by integrating policies with application programs.*

d. Mohaban, Shai et al (U.S. Patent Number 6,463,470) Entitled: *Method and apparatus of storing policies for policy-based management of quality of service treatments of network data traffic flows.*

e. Wang, Zheng (U.S. Patent Number 6,385,169) Entitled: *Allocation of bandwidth in a packet switched network among subscribers of a service provider.*

- f. EPSTEIN, STEVE et al (GB 2361609 A) Entitled: *Providing different levels of communication services, each level with its own encryption key.*
- g. Berger, Arthur W. et al. (U.S. Patent Number 6,160,818) Entitled: *Traffic management in packet communication networks having service priorities and employing effective bandwidths.*
- h. UBUSAWA, MITSURU et al (JP 2000312226 A) Entitled: *Method for warranting communication quality.*
- i. Kujoory, Ali Mohammad et al (U.S. Patent Number 6,021,263) Entitled: *Management of ATM virtual circuits with resources reservation protocol.*

NON PATENT DOCUMENTS

- j. Wu-chang Feng et al, "Adaptive packet marking for providing differentiated services in the Internet", Network Protocols, 1998. Proceedings. Sixth International Conference on, 13-16 Oct. 1998, Pages: 108 – 117
- k. J. Almeida et al, "Providing differentiated levels of service in web content hosting", In Proc. First Workshop on Internet Server Performance, ACM SIGMETRICS 98, July 1998.
- l. R. Pandey et al, "Supporting quality of service in HTTP servers", In Symposium on Principles of Distributed Computing, pages 247--256, 1998.

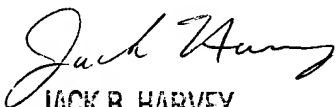
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- m. L. Eggert et al, "*Application-Level Differentiated Services for Web Servers*", World Wide Web Journal, Vol 2, No 3, March 1999, pp. 133-142.
- n. Gautam Rao, "*Application Level Differentiated Services for Web Servers*", retrieved from UNL (University of Nebraska- Lincoln), <http://csce.unl.edu/~bhavanal/web/alumnidocs/grao.MS.pdf>, April 2000.
- o. Surendar Chandra et al, "*Application level differentiated multimedia web services using quality aware transcoding*", IEEE Special Issue on QOS in the Internet, 2000.

9. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Yemane Gerezgiher whose telephone number is 703-305-4874. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful. The examiner's supervisor, Harvey Jack B, can be reached at (703) 305-9705.

Yemane Gerezgiher
AU 2144


JACK B. HARVEY
SUPERVISORY PATENT EXAMINER